Current EPA recommended approach (Note the weighted approach described below differs somewhat from what is presented in the spreadsheet "kkStormwaterLoadingExample.xls")

For all future analyses, the process for evaluating land use data should be as follows:

Method 1: Concentration loads:

- Enter data for land use into ProUCL 4.0, including ND. For data sets with NDs, ProUCL can create additional columns to store extrapolated values for NDs obtained using regression on order statistics (ROS).
- Use ProUCL to conduct goodness-of-fit (GOF) tests to determine distribution of data.
- Use ProUCL to conduct outlier tests. Outliers for heavy industrial land use will be recategorized as unique data if backed up by general information about the site activities and COI that would lead to such a conclusion. Outliers for other land uses will be retained in data set, but noted in conclusions discussion and uncertainty analysis. (This replaces discussion in Section 5.3.2)
- Use ProUCL graphical displays to present histograms, Q-Q plots, and box plots.
- Use ProUCL to present Summary Statistics and Estimates of Population Parameters for data set.

Method 2: Weighted Loads

- Use City Grid Model to determine flows for each sample event for each outfall.
- Within a land use, sum flows for each sample [please note that this will be chemical dependent]. (For example, the Light Industrial Land Use has four sample locations: OF-M1, OF-M2, Basin D, and Basin T. OF-M1 had 4 sample events, OF-M2 had 3 sample events, Basin D had 4 sample events, and Basin T had 4 sample events. If chemical x was analyzed in all samples, then 15 flows would be summed.)
- Within a land use, divide each flow event determined by the City Grid Model by the total flow from the previous step and multiply by the corresponding concentration. If the sample was ND, then multiply by the detection limit.
- Enter data for land use into ProUCL 4.0, including ND. For data sets with NDs, ProUCL can create additional columns to store extrapolated values for NDs obtained using regression on order statistics (ROS).
- Use ProUCL to conduct goodness-of-fit (GOF) tests to determine distribution of data.
- Use ProUCL to conduct outlier tests. Outliers for heavy industrial land use will be recategorized as unique data if backed up by general information about the site activities and COI that would lead to such a conclusion. Outliers for other land uses will be retained in data set, but noted in conclusions discussion and uncertainty analysis. (This replaces discussion in Section 5.3.2)
- Use ProUCL graphical displays to present histograms, Q-Q plots, and box plots.
- Use ProUCL to present Summary Statistics and Estimates of Population Parameters for data set.
- Within a land use, conduct correlation analysis of flow and concentration to determine if correlation exists. If $p<0.05$, then correlation exists and supports using data range from weighted data set. If no correlation exists ($p>0.05$), then compare data range from concentration loads and weighted loads to determine if range of loads to be used as inputs

to Hybrid Model should be modified; there should be a discussion supporting this decision (e.g., literature review of other sites where data has been shown to be dependent on flow, the weighted load range presents a worst case scenario.